

Inventors: Ruoslahti and Pasqualini  
Serial No.: 09/228,866  
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In the claims:

~~Please cancel claims 1 to 12.~~

~~Please add the following claims:~~

~~13. (New) A conjugate, comprising a peptide that selectively homes to brain linked to a moiety, wherein said moiety is selected from the group consisting of a toxin, drug, chemotherapeutic agent, cell and liposome.~~

14. (New) A peptide that selectively homes to brain, consisting of the amino acid sequence:

X<sub>1</sub>SRLX<sub>2</sub> (SEQ ID NO: 45),

*B'N'U'Z'*  
wherein X<sub>1</sub> and X<sub>2</sub> each is 1 to 10 independently selected amino acids.

15. (New) The peptide of claim 14, comprising the amino acid sequence CLSSRLDAC (SEQ ID NO: 3).

16. (New) The peptide of claim 15, consisting of the amino acid sequence CLSSRLDAC (SEQ ID NO: 3).

*C'N'C'Z'*  
17. (New) The peptide of claim 14, comprising the amino acid sequence CNSRLHLRC (SEQ ID NO: 1).

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18. (New) The peptide of claim 17, consisting of the amino acid sequence CNSRLHLRC (SEQ ID NO: 1).

*M13* 19. (New) The peptide of claim 14, comprising the amino acid sequence CNSRLQLRC (SEQ ID NO: 5).

*M13* 20. (New) The peptide of claim 19, consisting of the amino acid sequence CNSRLQLRC (SEQ ID NO: 5).

*B1*  
*cont* 21. (New) A conjugate, comprising a peptide that selectively homes to brain linked to a moiety, said peptide consisting of the amino acid sequence:

X<sub>1</sub>SREX<sub>2</sub> (SEQ ID NO: 45),

*M14* wherein X<sub>1</sub> and X<sub>2</sub> each is 1 to 10 independently selected amino acids, and

wherein said moiety is selected from the group consisting of a toxin, drug, chemotherapeutic agent, cell and liposome

22. (New) The conjugate of claim 21, said peptide comprising an amino acid sequence selected from the group comprising CNSRLHLRC (SEQ ID NO: 1), CLSSRLDAC (SEQ ID NO: 3) and CNSRLQLRC (SEQ ID NO: 5).

23. (New) The conjugate of claim 22, said peptide consisting of an amino acid sequence selected from the group consisting of CNSRLHLRC (SEQ ID NO: 1), CLSSRLDAC (SEQ ID NO: 3) and CNSRLQLRC (SEQ ID NO: 5).

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(24) (New) A peptide that selectively homes to brain consisting of the amino acid sequence:

$X_3VLRX_4$  (SEQ ID NO: 46),

wherein  $X_3$  is absent or is 1 to 10 independently selected amino acids and  $X_4$  is 1 to 20 independently selected amino acids, wherein said peptide is cyclic.

(25) (New) A conjugate, comprising a peptide that selectively homes to brain linked to a moiety, said peptide consisting of the amino acid sequence:

$X_3VLRX_4$  (SEQ ID NO: 46),

wherein  $X_3$  is absent or is 1 to 10 independently selected amino acids and  $X_4$  is 1 to 20 independently selected amino acids, and

wherein said moiety is selected from the group consisting of a toxin, drug, chemotherapeutic agent, cell and liposome.

B' cat  
M/C? 7  
26. (New) The conjugate of claim 25, said peptide comprising an amino acid sequence selected from the group comprising CVLRGGRC (SEQ ID NO: 4) and WRCVLREGPAGGCAWFNRHRL (SEQ ID NO: 16).

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~~(27.)~~ (New) The conjugate of claim 26, said peptide consisting of an amino acid sequence selected from the group consisting of CVLRGGRC (SEQ ID NO: 4) and WRCVLREGPAGGCAWFNRHRL (SEQ ID NO: 16).

*Sub D5*  
28. (New) A peptide that selectively homes to brain, comprising the amino acid sequence CVLRGGRC (SEQ ID NO: 4).

*Sub B1 D6*  
29. (New) The peptide of claim 28, consisting of the amino acid sequence CVLRGGRC (SEQ ID NO: 4).

*Sub B1 D6*  
30. (New) A peptide that selectively homes to brain, comprising the amino acid sequence WRCVLREGPAGGCAWFNRHRL (SEQ ID NO: 16).

*Sub D7*  
31. (New) The peptide of claim 30, consisting of the amino acid sequence WRCVLREGPAGGCAWFNRHRL (SEQ ID NO: 16).

*Sub D7*  
32. (New) A peptide that selectively homes to brain, comprising the amino acid sequence CENWWGDVC (SEQ ID NO: 2).

*Sub D8*  
33. (New) The peptide of claim 32, consisting of the amino acid sequence CENWWGDVC (SEQ ID NO: 2).

*Sub D8*  
34. (New) A peptide that selectively homes to brain, comprising the amino acid sequence CGVRLGC (SEQ ID NO: 6).

*Sub D8*  
35. (New) The peptide of claim 34, consisting of the amino acid sequence CGVRLGC (SEQ ID NO: 6).

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*Sub D*

36. (New) A peptide that selectively homes to brain,  
comprising the amino acid sequence ~~CKDWGRIC~~ (SEQ ID NO: 7).

*Sub D*

37. (New) The peptide of claim 36, consisting of the  
amino acid sequence CKDWGRIC (SEQ ID NO: 7).

*Sub D*

38. (New) A peptide that selectively homes to brain,  
comprising the amino acid sequence CLDWGRIC (SEQ ID NO: 8).

*Sub D*

39. (New) The peptide of claim 38, consisting of the  
amino acid sequence CLDWGRIC (SEQ ID NO: 8).

*Sub D*

40. (New) A peptide that selectively homes to brain,  
comprising the amino acid sequence CTRITESC (SEQ ID NO: 9).

*Sub D*

41. (New) The peptide of claim 40, consisting of the  
amino acid sequence CTRITESC (SEQ ID NO: 9).--

## II. REMARKS

Applicants herein reaffirm the election of Group I  
(claims 1 to 8). Elected claims 1 to 8 are pending, with  
claims 9 to 12 withdrawn from further consideration as drawn to  
non-elected inventions. Claims 1 to 8 have been canceled, and  
new claims 13 to 41 added. Thus, claims 13 to 41 are presently  
under examination.